

Amendments to the Claims:

1. (Cancelled)

2. (Cancelled)

3. (Previously Presented) The stereo camera system of claim 5, wherein the camera is a still camera and the at least one stereo image is a still image.

4. (Previously Presented) The stereo camera system of claim 5, wherein the camera is a video camera and the at least one stereo image is a sequence of video images.

5. (Currently Amended) A stereo camera system comprising:
stereo imaging means for outputting at least one stereo image, said stereo imaging means including:

a camera;

5 a set of mirrors angled with respect to each other at a ~~predetermined~~ adjustable angle relative to a centrally located common plane intersecting said camera, each mirror disposed a ~~predetermined~~ adjustable distance from the camera along the common plane, for directing light from an object reflected in said mirrors along a straight line of sight from said mirrors to the camera, for producing a stereo
10 effect in the output of the camera;

recognition means for ~~locating~~ analyzing stereo image data from the camera to locate an object of interest in a field of view of the camera and ~~for determining to determine~~ at least one of a distance of the object of interest from the stereo imaging means and a size of the object of interest; and

15 adjusting means for automatically changing at least one system parameter which affects the spatial resolution of the object of interest based on ~~at least one of the determined distance of the object of interest from the stereo imaging means and the determined size of the object of interest~~ the analysis of the stereo image data, the adjusting means comprising:

20 angle adjustment means for adjusting a ~~predetermined~~
the angle between of the set of mirrors relative to the centrally located
plane;

 distance adjustment means for adjusting a
~~predetermined~~ the distance between the camera and the set of mirrors;
25 and

 focal length adjustment means for changing a focal
length of the camera.

6. (Previously Presented) The stereo camera system of claim 5,
further comprising a controller for controlling the angle, distance, and focal length
adjustment means based on an input signal from the recognition means.

7.-11. (Cancelled)

12. (Previously Presented) The stereo camera system of claim 5,
wherein the recognition means is a stereo vision system.

13.-20. (Cancelled)

21. (Cancelled)

22. (Currently Amended) A stereo camera system comprising:
~~a stereo imaging means including two video cameras, each cameras~~
being angled at an a predetermined angle relative to each other and ~~distanced~~
separated by a predetermined distance with respect to from each other and the object
5 of interest, for outputting ~~at least one stereo image as a~~ sequence of stereo video
images;

~~recognition means for locating system which analyzes the stereo video~~
images during operation of the video cameras to output the stereo video images to
locate an object of interest in the a field of view of the stereo imaging means video

10 cameras and determine at least one of a distance of the object of interest from the
~~stereo imaging means video cameras and the~~ a size of the object of interest;

~~adjusting means for automatically changing at least one system
parameter which affects the spatial resolution of the object of interest based on at least
one of the located distance of the object of interest from the stereo imaging means and~~
15 ~~the size of the object of interest, wherein the adjusting means comprises:~~

a controller which, based on input from the recognition system,
controls:

~~a focal length adjustment means for changing~~
mechanism which changes a focal length of at least one of the two
20 cameras based on the analysis of the stereo video images;

~~an angle adjustment means for adjusting the~~
~~predetermined mechanism which adjusts the~~ angle of at least one of
~~the two cameras the video cameras relative to each other based on the~~
analysis of the stereo video images;

25 ~~a baseline adjustment means for automatically adjusting~~
~~the predetermined mechanism which adjusts the~~ distance between the
~~two cameras; and by which the video cameras are separated based on~~
the analysis of the stereo video images

~~distance adjustments means for adjusting a distance~~
30 ~~between at least one of the two cameras and the object of interest.~~

23. (Previously Presented) The stereo camera system of claim 5,
wherein the mirrors have adjacent ends positioned at a common point.

24. (Currently Amended) The stereo camera system of claim 23,
wherein the mirrors are disposed for directing the light from the object which is
reflected in the ~~planar~~ mirrors directly from the mirrors to the camera.

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (New) The stereo camera system of claim 12, wherein the recognition means analyzes the stereo image data during operation of the camera.

31. (New) The stereo camera system of claim 12, wherein the adjusting means further includes:

a base line adjusting means for adjusting a distance between the mirrors based on the analysis of the stereo image data by the recognition means.

32. (New) The stereo camera system of claim 22, further including:

a distance adjusting mechanism which is controlled by the controller to adjust a distance between at least one of the video cameras and the object of interest.

33. (New) A method of stereo imaging using a stereo camera system which includes a camera and a pair of mirrors separated by a separation distance along a base plane and angled by an angle relative to a common central plane, the method comprising:

outputting at least one stereo image of an object of interest from the camera;

analyzing the at least one stereo image output by the camera; and

adjusting the angle relative to the common central plane based on the analysis of the at least one stereo image.

34. (New) The method of claim 32, further including:

adjusting a distance between the camera and the mirrors based on the analyses of the at least one stereo image.

35. (New) The method of claim 34, further including:
adjusting the separation distance between the mirrors based on the analysis of the at least one stereo image.

36. (New) The method of claim 34, further including:
adjusting a focal length of the camera based on the analyses of the at least one stereo image.

37. (New) The method of claim 34, wherein the pair of mirrors abut at and pivot on the common central plane.

38. (New) The method of claim 33, wherein the at least one stereo image includes a series of stereo video images and the analyzing step further includes:

analyzing the series of video images during the outputting of the series of video images.